

CLAIMS

What is claimed is:

1. A server, comprising:
a network connector;
a processor coupled to the network connector, the processor being adapted to process a plurality of different types of network traffic;
a peripheral component interface (PCI) bridge coupled to the processor; and
a unified driver coupled to the PCI bridge, the unified driver being adapted to provide drivers associated with the plurality of different types of network traffic.
2. The server according to claim 1, wherein the network connector comprises an Ethernet connector.
3. The server according to claim 1, wherein the plurality of different types of network traffic comprises at least two of common Ethernet traffic, offload traffic, storage traffic and remote direct memory access (RDMA) traffic.
4. The server according to claim 1, wherein the processor comprises a single integrated chip.
5. The server according to claim 1, wherein the processor comprises a layer 2 network interface card (L2 NIC), a transmission control protocol (TCP) processor and a ULP processor.
6. The server according to claim 5, wherein the TCP processor provides layer 3 processing and layer 4 processing.

7. The server according to claim 5, wherein the TCP processor is shared by at least two of TCP offload traffic, Internet small computer system interface (iSCSI) traffic and RDMA traffic.

8. The server according to claim 5, wherein the ULP processor provides iSCSI processing.

9. The server according to claim 5, wherein the ULP processor provides RDMA processing.

10. The server according to claim 1, further comprising:
a server management agent coupled to the processor.

11. The server according to claim 1, wherein the server management agent is coupled to a keyboard and/or video and/or mouse service.

12. The server according to claim 1, further comprising:
a plurality of services coupled to the unified driver.

13. The server according to claim 12, wherein the plurality of services comprises at least two of a socket service, a SCSI miniport service, an RDMA service and a keyboard and/or video and/or mouse service.

14. The server according to claim 1,
wherein the unified driver is coupled to a software TCP processor and to a socket service switch,
wherein the software TCP processor is coupled to the socket service switch, and
wherein the socket service switch is coupled to a socket service.

15. The server according to claim 1, wherein the processor or the PCI bridge determines which of the different types of network traffic accesses a particular service provided by the server.

16. The server according to claim 15, wherein the particular service comprises at least one of a socket service, a SCSI miniport service, an RDMA service and a keyboard and/or video and/or mouse service.

17. The server according to claim 1, wherein the processor, the PCI bridge or the unified driver provides a unified data and control path.

18. A method for network interfacing, comprising:

- (a) handling a plurality of different types of network traffic via a layer 2 (L2) connector;
- (b) processing the different types of network traffic in a single chip; and
- (c) determining which of the different types of network traffic accesses software services via a single data path.

19. The method according to claim 18, wherein the plurality of different types of network traffic comprises at least two of common Ethernet traffic, offload traffic, storage traffic, interprocess communication (IPC) traffic and management traffic.

20. The method according to claim 18, wherein the L2 connector is a single L2 connector.

21. The method according to claim 18, wherein (c) comprises employing time division multiplexing to determine which of the different types of network traffic access the software services via the single data path.

22. The method according to claim 18, wherein (c) comprises dynamically allocating fixed resources between among the different types of network traffic.

23. The method according to claim 18, further comprising:

(a) providing drivers associated with the plurality of different types of network traffic via a unified driver.

24. A method for network interfacing, comprising:

(a) handling a plurality of different types of network traffic via a single Ethernet connector;

(b) processing the plurality of different types of network traffic using a layer 2 (L2) processor, a layer 3 (L3) processor, a layer 4 (L4) processor and an upper layer protocol (ULP) processor; and

(c) providing a unified data and control path.

25. The method according to claim 24, wherein the L2 processor comprises a single L2 network interface card (NIC).

26. The method according to claim 24, wherein the L3 processor and the L4 processor are combined into a single TCP processor.

27. The method according to claim 24, wherein the ULP processor comprises at least one of an Internet small computer system interface (iSCSI) processor and a remote direct memory access (RDMA) processor.

28. The method according to claim 24, further comprising:

(a) providing drivers associated with the plurality of different types of network traffic via a single unified driver.